CLAIMS

We claim:

1. A method of providing a conversation in an educational simulation for a learner comprising the steps of:

   providing simulation software code;

   providing a dynamic data model comprising tasks and statements;

   receiving a statement made by the learner; and

   generating a list of possible statements in response to the received statement for the learner to make from the statements contained within the dynamic data model based on at least one of:

      a. whether the current conversation has an enforced sequence of tasks,

      b. whether the current task allows the learner to move to a sibling task,

      c. whether the current conversation requires completion;

      d. whether the current task is a leaf task,

      e. whether the current task is a required task, or

      f. whether the task is complete.

2. The method of claim 1 wherein the dynamic data model is independent from the simulation software code.

3. The method of claim 1 wherein the list of possible statements comprises candidate statements of the current task when the conversation has an enforced sequence of tasks and the task allows the learner to move to a sibling task.

4. The method of claim 1 wherein the list of possible statements comprises candidate statements of the current task and invoking statements of uninvoked sibling tasks when the conversation has an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a required leaf task.

5. The method of claim 1 wherein the list of possible statements comprises candidate statements of the nearest incomplete ancestor task of the current task when the conversation has an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a non-required, leaf task.

6. The method of claim 1 wherein the list of possible statements comprises candidate statements of the nearest incomplete ancestor task of the current task and invoking statements of uninvoked sibling tasks of the nearest incomplete ancestor task of the current task when the conversation has an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a complete, non-leaf task.

7. The method of claim 1 wherein the list of possible statements comprises candidate statements of the current task and invoking statements of uninvoked sibling tasks of the nearest incomplete ancestor task of the current task when the conversation has an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a required, incomplete, non-leaf task.

8. The method of claim 1 wherein the list of possible statements comprises transition and candidate statements of the nearest required ancestor task of the current task when the conversation does not have an enforced sequence of tasks and the task does not allow the learner to move to a sibling task and the task is a leaf task.

9. The method of claim 1 wherein the list of possible statements comprises candidate statements of the nearest required ancestor task of the current task when the conversation does not have an enforced sequence of tasks and the task does not allow the learner to move to a sibling task and the task is a non-leaf task.

10. The method of claim 1 wherein the list of possible statements comprises candidate and transition statements of the nearest incomplete ancestor task and invoking statements of the sibling tasks of the nearest incomplete ancestor task when the conversation does not have an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a required leaf task.

11. The method of claim 1 wherein the list of possible statements comprises candidate and transition statements of the nearest incomplete ancestor task when the conversation does not have an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a non-required, leaf task.

12. The method of claim 1 wherein the list of possible statements comprises candidate statements of a nearest incomplete ancestor task, invoking statements of uninvoked sibling tasks of the nearest incomplete ancestor task, and transition statements of active sibling tasks of the nearest incomplete ancestor when the conversation does not have an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a complete, non-leaf task.

13. The method of claim 1 wherein the list of possible statements comprises candidate statements of the current task, invoking statements of uninvoked sibling tasks of the current task, and transition statements of active sibling tasks of the current task when the conversation does not have an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is an incomplete, non-leaf task.

14. A method of providing a conversation in an educational simulation for a learner comprising the steps of:

providing simulation software code;

providing a dynamic data model comprising tasks and statements;

receiving a statement made by the learner; and

generating a list of possible statements for the learner to make from the statements within the dynamic data model.

15. The method of claim 14 further comprising the step of determining whether the received statement completes a current task.

16. The method of claim 15 wherein the step of generating a list of possible statements for the learner to make from the statements of the dynamic data model further comprises the steps of:

determining whether a current conversation is has an enforced sequence of tasks;

determining whether the current conversation is the conversation requires completion or the conversation does not require completion;

determining whether the current task is a leaf task or a non-leaf task;

determining whether current task is a required task;

generating the list of possible statements based on at least one of the previously determined factors of:

a. whether the conversation has an enforced sequence of tasks,

b. whether the current conversation is the conversation does not require completion or the conversation requires completion,

c. whether the current conversation requires completion;

d. whether the current task is a leaf or non-leaf task,

e. whether the current task is a required task, and

f. whether the task is complete.

17. The method of claim 16 wherein the dynamic data model is independent from the simulation software code.

18. The method of claim 16 wherein the list of possible statements comprises candidate statements of the current task when the conversation has an enforced sequence of tasks and the task allows the learner to move to a sibling task.

19. The method of claim 16 wherein the list of possible statements comprises candidate statements of the current task and invoking statements of uninvoked sibling tasks when the conversation has an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a required leaf task.

20. The method of claim 16 wherein the list of possible statements comprises candidate statements of the nearest incomplete ancestor task of the current task when the conversation has an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a non-required, leaf task.

21. The method of claim 16 wherein the list of possible statements comprises candidate statements of the nearest incomplete ancestor task of the current task and invoking statements of uninvoked sibling tasks of the nearest incomplete ancestor task of the current task when the conversation has an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a complete, non-leaf task.

22. The method of claim 16 wherein the list of possible statements comprises candidate statements of the current task and invoking statements of uninvoked sibling tasks of the nearest incomplete ancestor task of the current task when the conversation has an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a required, incomplete, non-leaf task.

23. The method of claim 16 wherein the list of possible statements comprises transition and candidate statements of the nearest required ancestor task of the current

task when the conversation does not have an enforced sequence of tasks and the task does not allow the learner to move to a sibling task and the task is a leaf task.

24. The method of claim 16 wherein the list of possible statements comprises candidate statements of the nearest required ancestor task of the current task when the conversation does not have an enforced sequence of tasks and the task does not allow the learner to move to a sibling task and the task is a non-leaf task.

25. The method of claim 16 wherein the list of possible statements comprises candidate and transition statements of the nearest incomplete ancestor task and invoking statements of the sibling tasks of the nearest incomplete ancestor task when the conversation does not have an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a required leaf task.

26. The method of claim 16 wherein the list of possible statements comprises candidate and transition statements of the nearest incomplete ancestor task when the conversation does not have an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a non-required, leaf task.

27. The method of claim 16 wherein the list of possible statements comprises candidate statements of a nearest incomplete ancestor task, invoking statements of uninvoked sibling tasks of the nearest incomplete ancestor task, and transition statements of active sibling tasks of the nearest incomplete ancestor when the conversation does not have an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is a complete, non-leaf task.

28. The method of claim 16 wherein the list of possible statements comprises candidate statements of the current task, invoking statements of uninvoked sibling tasks

of the current task, and transition statements of active sibling tasks of the current task when the conversation does not have an enforced sequence of tasks and the task allows the learner to move to a sibling task and the task is an incomplete, non-leaf task.

29. A system for creating a conversation in an educational simulation for a learner comprising:

        means for providing simulation software code;

        means for providing a dynamic data model comprising tasks and statements;

        means for receiving a statement made by the learner; and

        means for generating a list of possible statements for the learner to make from the statements within the dynamic data model.

30. The system of claim 29 further comprising means for determining whether the received statement completes a current task.